Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A backup server for enabling a data communications network to recover from a local server failure, the backup server comprising:

    an information packet requester configured to request an information packet from a memory associated with the a network access server (NAS) in response to a call received from the NAS, if the call information is not available to the backup server, the information packet associated with an ongoing call placed by a call-in user via the NAS, the information packet containing call information for maintaining connection of the ongoing call if the local server fails;

    an information packet receiver responsive to the local server failure, the information packet receiver receiving the information packet from a memory associated with a network access server (NAS) ~~an information packet associated with an ongoing call placed by the call-in user via the NAS, the information packet containing call information for maintaining connection of the ongoing call if the local server fails~~, the NAS configured to couple ~~capable of coupling~~ a call placed from the call-in user to the data communications network and providing a network connection to the local server; and

    a parser configured to reconstruct ~~for reconstructing~~ the call information from the information packet, such that the backup server maintains the ongoing call to the data communications network.

2. (Previously Presented) A backup server according to claim 1, wherein the call information comprises server-state attribute (SSA) having an attribute/value pair that can be parsed into a plurality of separate data entries.

3. (Previously Presented) A backup server according to claim 1, wherein the information packet further comprises a plurality of aggregated data elements from a call attribute table.

4. (Previously Presented) A backup server according to claim 3, wherein the plurality of aggregated data elements are separated by the parser for reconstructing the call information from the information packet.

5-8. (Cancelled)

9. (Currently Amended) A local server for enabling a data communications network to recover from a failure of the local sever, the local server comprising:

an encoder <u>configured to generate</u> ~~for generating~~ an information packet associated with an ongoing call placed by the call-in user via a network access server (NAS), the NAS <u>configured to couple</u> ~~capable of coupling~~ a call placed from the call-in user to the data communications network and providing a network connection to the local server, the information packet containing call information for maintaining connection of the ongoing call if the local server fails; and

a sender <u>configured to generate</u> ~~for transmitting~~ the information packet from the encoder to a memory associated with the NAS, the information packet being stored in the memory to be available to the backup server <u>via an information packet requester associated with the backup server</u> if the local server fails <u>and the information is not available to the backup server</u>.

10. (Previously Presented) A local server according to claim 9, wherein the call information comprises server-state attribute (SSA) having an attribute/value pair that can be parsed into a plurality of separate data entries.

11. (Previously Presented) A local server according to claim 9, wherein the information packet further comprises a plurality of aggregated data elements from a call attribute table.

12. (Previously Presented) A local server according to claim 11, wherein the plurality of aggregated data elements are separated by the parser for reconstructing the call information from the information packet.

13. (Currently Amended) A system for maintaining a call placed by a call-in user to a data communications network, the system comprising:

a memory associated to a network access server (NAS), the NAS <u>configured to couple</u> ~~capable of coupling~~ a call placed from the call-in user to the data communications network and providing a network connection to a local server;

an encoder associated with the local server <u>and configured to generate</u> ~~for generating~~ an information packet associated with an ongoing call placed by the call-in user via the NAS, wherein the information packet containing call information for maintaining connection of the ongoing call if the local server fails;

a sender <u>configured to transmit</u> ~~for transmitting~~ the information packet from the encoder to a memory associated with the NAS, the information packet being stored in the memory;

a call coupler associated with the NAS <u>and configured to couple</u> ~~for coupling~~ the call to the local server if the local server does not fail, <u>the call coupler further configured to couple</u> ~~and for coupling~~ the call to the backup server if the local server fails;

an information packet forwarder <u>configured to transmit</u> ~~for transmitting~~ the information packet from the associated memory to the backup server if the local server fails<u>, the information packet forwarder further comprising an information packet requester associated with the backup server for requesting the information packet from the memory associated with the NAS in response to the call received from the NAS, if the call information is not available to the backup server.</u>~~;~~ and

a parser associated with the backup server <u>and configured to reconstruct</u> ~~for reconstructing~~ the call information from the information packet such that the backup server can recover the call information and serve the call without disconnecting the user from the network.

14-15. (Cancelled)

16. (Currently Amended) A system according to claim <u>13</u> ~~14~~, wherein the information packet forwarder further comprises:

an information packet sender associated with the NAS<u>, and configured to transmit</u> ~~for transmitting~~ the information packet in response to a request from the information packet requester.

17. (Currently Amended) A network access server (NAS) for maintaining a call placed from a call-in user to a data communications network, the NAS comprising:

a receiver for receiving an information packet from a local server, the information packet associated with an ongoing call placed to the NAS by the call-in user, the information packet containing context data of the ongoing call for maintaining connection of the ongoing call;

an associated memory configured to store ~~for storing~~ the information packet;

a failure detector configured to determine ~~for determining~~ if a failure of a local server has occurred; and

a sender configured to transmit ~~for transmitting~~ the information packet from the associated memory to the a backup server via an information packet requester associated with the backup server if the local server failure has occurred and the information is not available to the backup server, the NAS configured to couple ~~capable of coupling~~ a call placed from the call-in user to the data communications network and providing a network connection to the local server.

18. (Previously Presented) A NAS according to claim 17, wherein the call information comprises server-state attribute (SSA) data having an attribute/value pair that can be parsed into a plurality of separate data entries.

19. (Currently Amended) A NAS according to claim 17, wherein the information packet further comprises a plurality of aggregated data elements from a call attribute table.

20. (Currently Amended) A server backup system for maintaining an ongoing call placed by a call-in user to a network, the system comprising:

a backup server connected to the network, the backup server configured to service ~~being capable of servicing~~ the call;

an encoder associated with a server servicing the call, the encoder generating an information packet associated with an ongoing call placed by the call-in user via a network access server (NAS) configured to couple ~~capable of coupling~~ the call from the user to the network, the NAS further configured to provide ~~and providing~~ a network connection to the server, the information packet containing call information for maintaining connection of the ongoing call;

a sender associated with the server, the sender <u>configured to transmit</u> <s>transmitting</s> the

information packet to a memory associated with the NAS, the memory <u>configured to</u>

<u>store</u> <s>storing</s> the information packet;

a call coupler associated with the NAS, the call coupler <u>configured to roll</u> <s>rolling</s> over the

call to the backup server if the server fails;

an information packet requester associated with the backup server, <u>the information packet</u>

<u>requester configured to request</u> <s>for requesting</s> the information packet from the memory

associated with the NAS in response to the call received from the NAS, if the call

information is not available to the backup server; and

a parser associated with the backup server <u>and configured to reconstruct</u><s>, for reconstructing</s>

the call information from the information packet.

21. (Previously Presented) A server backup system according to claim 20, wherein the call

information comprises server-state attribute data having an attribute/value pair that can be

parsed into a plurality of separate data entries.

22. (Previously Presented) A server backup system according to claim 20, wherein the

information packet further comprises a plurality of aggregated data elements from a call

attribute table.

23. (Previously Presented) A server backup system according to claim 22, wherein the plurality

of aggregated data elements of the information packet are separated by the parser for

reconstructing the call information from the information packet.

24. (Previously Presented) A server backup system according to claim 20, wherein the server is

a resource pool manager server (RPMS).

25. (Cancelled)

26. (Currently Amended) A server backup system according to claim 20, further comprising:

a failure detector associated with the NAS<s>,</s> <u>and configured to detect</u> <s>for detecting</s> the failure

of the server.

27-29. (Cancelled)

30. (Currently Amended) A server backup system for maintaining an ongoing call placed by a
call-in user to a network, the system comprising:

a first server connected to the network and configured to service ~~for servicing~~ the call;

a second server connected to the network and configured to service ~~for servicing~~ the call if
the first server fails; and

a network access server (NAS) configured to couple ~~capable of coupling~~ a call placed by a
call-in user to the network and providing a network connection to a server, the NAS
coupling the call from the call-in user to the first server if the first server does not fail,
and coupling the call to the second server if the first server fails, the NAS including a
memory associated therewith,

wherein the first server comprises:

an encoder configured to generate ~~for generating~~ an information packet associated with
an ongoing call placed by the call-in user via the NAS, the information packet
containing call information for maintaining connection of the ongoing call if the
first server fails; and

a sender configured to transmit ~~for transmitting~~ the information packet from the encoder
to the memory associated with the NAS, the memory storing the information
packet, and

wherein the second server comprises:

an information packet requester configured to request ~~for requesting~~ the information
packet from the memory in response to the call received from the NAS, if the call
information is not available to the second server; and

a parser configured to reconstruct ~~for reconstructing~~ the call information from the
information packet.

31. (Currently Amended) A server backup system according to claim 30, wherein the NAS
further comprises:

a failure detector configured to detect ~~for detecting~~ the failure of the second server.

32. (Previously Presented) A server backup system according to claim 30, wherein the first server is a resource pool manager server (RPMS) and the second server is a backup RPMS.

33-51. (Canceled)

52. (Previously Presented) A NAS according to claim 17, wherein the sender transmits the information packet in response to a request from the backup server.

53-62. (Cancelled)

63. (Currently Amended) A method performed by a backup server for enabling a data communications network to recover from a local server failure, the method comprising:

if the local server fails and if an information packet associated with an ongoing call placed by a call-in user is not available, requesting the information packet from a memory associated with a network access server (NAS) in response to a call placed from the call-in user to the data communications network, the information packet containing call information for maintaining connection of the ongoing call if the local server fails;

receiving the an information packet from the a memory associated with a network access server (NAS) in response to the a local server failure, the NAS configured to couple capable of coupling a call placed from a call-in user to the data communications network, the NAS further configured to provide and providing a network connection to a local server, the information packet being associated with an ongoing call placed by the call-in user via the NAS, the information packet containing call information for maintaining connection of the ongoing call if the local server fails; and

reconstructing the call information from the information packet so as to maintain the ongoing call to the data communications network.

64. (Previously Presented) A method according to claim 63, wherein the call information comprises server-state attribute (SSA) data having an attribute/value pair, the reconstructing comprising:

parsing the SSA data into a plurality of separate data entries.

65. (Previously Presented) A method according to claim 64, further comprising:

petitioning to the NAS for the information packet after the NAS requests the call

information; and

sending the call information to the NAS after completing the reconstructing.

66. (Currently Amended) A method performed by a local server for enabling a data

communications network to recover from a failure of the local sever, the method comprising:

generating an information packet associated with an ongoing call placed by the call-in user

via a network access server (NAS), the information packet containing call information

for maintaining connection of the ongoing call if the local server fails, the NAS

configured to couple capable of coupling a call placed from the call-in user to the data

communications network and providing a network connection to the local server; and

transmitting the information packet to the memory associated with the NAS, the information

packet being stored in the memory to be available to the backup server via an

information packet requester associated with the backup server if the local server fails

and the information is not available to the backup server.

67. (Previously Presented) A method according to claim 66, wherein the call information

comprises server-state attribute (SSA) data having an attribute/value pair, the method further

comprising:

encoding a plurality of aggregated data elements from a call attribute table representing the

SSA data; and

delimiting information packet into an attribute data string and a value data string.

68. (Currently Amended) A method for maintaining a call placed by a call-in user to a data

communications network, the method comprising:

generating an information packet associated with an ongoing call placed by the call-in user

via a network access server (NAS), wherein the information packet containing call

information of an ongoing call for maintaining connection of the call if the local server

fails;

transmitting the information packet to the memory associated with the NAS, the information

packet being stored in a memory associated with the NAS, the NAS configured to

couple ~~capable of coupling~~ a call placed from the call-in user to the data communications network and providing a network connection to the local server;

coupling the call to the local server if the local server does not fail, and coupling the call to the backup server if the local server fails;

transmitting the information packet from the memory associated with NAS to the backup server <u>via an information packet requester associated with the backup server</u> if the local server fails <u>and the information is not available to the backup server</u>; and

reconstructing the call information from the information packet such that the backup server can recover the call context and serve the ongoing call without disconnecting the user from the network.

69. (Currently Amended) A method performed by a network access server (NAS) for maintaining a call placed from a call-in user to a data communications network the method comprising:

receiving an information packet from a local server for servicing the call, the information packet associated with an ongoing call placed by the call-in user via the NAS, the information packet containing call information of the ongoing call for maintaining connection of the ongoing call if the local server fails, the NAS <u>configured to couple</u> ~~capable of coupling~~ a call placed from the call-in user to the data communications network<u>, the NAS further configured to provide</u> ~~and providing~~ a network connection to the local server;

storing the information packet in a memory associated with the NAS;

determining if a failure of the local server has occurred; and

transmitting the information packet from the associated memory to the backup server <u>via an information packet requester associated with the backup server</u> if the local server failure has occurred <u>and the information is not available to the backup server</u>.

70. (Previously Presented) A method according to claim 69, wherein the call information comprises server-state attribute (SSA) data having an attribute/value pair that can be parsed into a plurality of separate data entries.

71. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method to be performed at a backup server for enabling a data communications network to recover from a local server failure, the method comprising:

if the local server fails and if an information packet associated with an ongoing call placed by a call-in user is not available, requesting the information packet from a memory associated with a network access server (NAS) in response to a call placed from the call-in user to the data communications network, the information packet containing call information for maintaining connection of the ongoing call if the local server fails;

receiving the ~~an~~ information packet from the ~~a~~ memory ~~associated with a network access server (NAS)~~ in response to the ~~a~~ local server failure, the NAS configured to couple ~~capable of coupling~~ a call placed from a call-in user to the data communications network, the NAS further configured to provide ~~and providing~~ a network connection to a local server, ~~the information packet being associated with an ongoing call placed by the call-in user via the NAS, the information packet containing call information for maintaining connection of the ongoing call if the local server fails~~; and

reconstructing the call information from the information packet so as to maintain the ongoing call to the data communications network.

72. (Previously Presented) A program storage device according to claim 71, wherein the call information comprises server-state attribute (SSA) data having an attribute/value pair, the reconstructing comprising:

parsing the SSA data into a plurality of separate data entries.

73. (Previously Presented) A program storage device according to claim 72, further comprising:

petitioning to the NAS for the information packet after the NAS requests the call information; and

sending the call information to the NAS after completing the reconstructing.

74. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method to be performed at

a local server for enabling a data communications network to recover from a failure of the local sever, the method comprising:

generating an information packet associated with an ongoing call placed by the call-in user via a network access server (NAS), the information packet containing call information for maintaining connection of the ongoing call if the local server fails, the NAS configured to couple ~~capable of coupling~~ a call placed from the call-in user to the data communications network and providing a network connection to the local server; and

transmitting the information packet to the memory associated with the NAS, the information packet being stored in the memory to be available to the backup server <u>via an information packet requester associated with the backup server</u> if the local server fails <u>and the information is not available to the backup server</u>.

75. (Previously Presented) A program storage device according to claim 74, wherein the call information comprises server-state attribute (SSA) data having an attribute/value pair, the method further comprising:

encoding a plurality of aggregated data elements from a call attribute table representing the SSA data; and

delimiting information packet into an attribute data string and a value data string.

76. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method to be performed at a network access server (NAS) for maintaining a call placed from a call-in user to a data communications network, the method comprising:

receiving an information packet from a local server for servicing the call, the information packet associated with an ongoing call placed by the call-in user via the NAS, the information packet containing call information of the ongoing call for maintaining connection of the ongoing call if the local server fails, the NAS <u>configured to couple</u> ~~capable of coupling~~ a call placed from the call-in user to the data communications network<u>, the NAS further configured to provide</u> ~~and providing~~ a network connection to the local server;

storing the information packet in a memory associated with the NAS;

determining if a failure of the local server has occurred; and

transmitting the information packet from the associated memory to the backup server <u>via an information packet requester associated with the backup server</u> if the local server failure has occurred <u>and the information is not available to the backup server</u>.

77. (Previously Presented) A program storage device according to claim 76, wherein the call information comprises server-state attribute (SSA) data having an attribute/value pair that can be parsed into a plurality of separate data entries.

78. (Currently Amended) An apparatus for enabling a data communications network to recover from a local server failure, the data communications network including a network access server (NAS) <u>configured to couple</u> <s>capable of coupling</s> a call placed from a call-in user to the data communications network and providing a network connection to the local server, the NAS having a memory associated therewith, the apparatus comprising:

<u>means for, if the local server fails and if an information packet associated with an ongoing call placed by a call-in user is not available, requesting the information packet from a memory associated with a network access server (NAS) in response to a call placed from the call-in user to the data communications network, the information packet containing call information for maintaining connection of the ongoing call if the local server fails;</u>

means for receiving <u>the</u> <s>an</s> information packet from <u>the</u> <s>a</s> memory <s>associated with a network access server (NAS)</s> in response to <u>the</u> <s>a</s> local server failure, the NAS <u>configured to couple</u> <s>capable of coupling</s> a call placed from a call-in user to the data communications network<u>, the NAS further configured to provide</u> <s>and providing</s> a network connection to a local server<s>, the information packet being associated with an ongoing call placed by the call-in user via the NAS, the information packet containing call information for maintaining connection of the ongoing call if the local server fails</s>; and

means for reconstructing the call information from the information packet so as to maintain the ongoing call to the data communications network.

79. (Previously Presented) An apparatus according to claim 78, wherein the call information comprises server-state attribute (SSA) data having an attribute/value pair, the means for reconstructing comprising:

means for parsing the SSA data into a plurality of separate data entries.

80. (Previously Presented) An apparatus according to claim 79, further comprising:

means for petitioning to the NAS for the information packet after the NAS requests the call
information; and

means for sending the call information to the NAS after completing the reconstructing.

81. (Currently Amended) An apparatus for enabling a data communications network to recover
from a failure of the local sever, the data communications network including a backup server
and a network access server (NAS), the NAS <u>configured to couple</u> ~~capable of coupling~~ a call
placed from a call-in user to the data communications network and providing a network
connection to the local server, the NAS having a memory associated therewith, the apparatus
comprising:

means for generating an information packet associated with an ongoing call placed by the
call-in user via the NAS, the information packet containing call information for
maintaining connection of the ongoing call if the local server fails; and

means for transmitting the information packet to the memory associated with the NAS, the
information packet being stored in the memory to be available to the backup server <u>via</u>
<u>an information packet requester associated with the backup server</u> if the local server
fails <u>and the information is not available to the backup server</u>.

82. (Previously Presented) An apparatus according to claim 81, wherein the call information
comprises server-state attribute (SSA) data having an attribute/value pair, the apparatus
further comprising:

means for encoding a plurality of aggregated data elements from a call attribute table
representing the SSA data; and

means for delimiting information packet into an attribute data string and a value data string.

83. (Currently Amended) An apparatus for maintaining a call placed from a call-in user to a
data communications network, the data communications network including a local server for
servicing the call, and a backup server <u>configured to service</u> ~~capable of servicing~~ the call, the
apparatus <u>configured to couple</u> ~~capable of coupling~~ the call to the data communications

network, the apparatus further configured to provide ~~and providing~~ a network connection to the local server, the apparatus comprising:

means for receiving an information packet from the local server, the information packet associated with an ongoing call placed by the call-in user via the apparatus, the information packet containing call information of the ongoing call for maintaining connection of the ongoing call if the local server fails;

means for storing the information packet in a memory associated with the apparatus;

means for determining if a failure of the local server has occurred; and

means for transmitting the information packet from the associated memory to the backup server via an information packet requester associated with the backup server if the local server failure has occurred and the information is not available to the backup server.

84. (Previously Presented) An apparatus according to claim 83, wherein the call information comprises server-state attribute (SSA) data having an attribute/value pair that can be parsed into a plurality of separate data entries.

85. (Previously Presented) A backup server according to claim 1, wherein the call information comprises at least one of:

Dialed Number Information Service (DNIS) address;

call type;

Calling Line Identification (CLID); and

service accounting information.

86. (Cancelled)

87. (Previously Presented) A local server according to claim 9, wherein the call information comprises at least one of:

Dialed Number Information Service (DNIS) address;

call type;

Calling Line Identification (CLID); and

service accounting information.

88. (Previously Presented) A system according to claim 13, wherein the call information

    comprises at least one of:

    Dialed Number Information Service (DNIS) address;

    call type;

    Calling Line Identification (CLID); and

    service accounting information.

89. (Previously Presented) A NAS according to claim 17, wherein the call information

    comprises at least one of:

    Dialed Number Information Service (DNIS) address;

    call type;

    Calling Line Identification (CLID); and

    service accounting information.

90. (Previously Presented) A server backup system according to claim 20, wherein the call

    information comprises at least one of:

    Dialed Number Information Service (DNIS) address;

    call type;

    Calling Line Identification (CLID); and

    service accounting information.

91. (Previously Presented) A server backup system according to claim 30, wherein the call

    information comprises at least one of:

    Dialed Number Information Service (DNIS) address;

    call type;

    Calling Line Identification (CLID); and

    service accounting information.